

U.S. Patent Application Serial No. 10/642,260
Response filed July 5, 2005
Reply to OA dated April 4, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 Claim 1 (previously presented): An operation microscope comprising:
2 an observation optical system including an objective lens opposed to an eye to be operated;
3 an illumination optical system for guiding illumination light from a light source to a vicinity
4 of an optical axis of the observation optical system; and
5 a deflection means for deflecting the illumination light guided to the vicinity of the optical
6 axis of the observation optical system by the illumination optical system and guiding the illumination
7 light to the eye to be operated through the objective lens,
8 wherein the deflection means includes a pair of deflection members which are a first
9 deflection member for guiding a first part of the illumination light at a predetermined oblique angle
10 with respect to the optical axis of the observation optical system and a second deflection member
11 for guiding a second part of the illumination light at an oblique angle substantially equal to the
12 predetermined oblique angle with respect to the optical axis simultaneously with guiding of the first
13 part of the illumination light by the first deflection member, the second deflection member being
14 disposed in an opposite side to the first deflection member so as to sandwich the optical axis of the

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15 observation optical system therebetween,
16 wherein the deflection means further includes a third deflection member that guides a third
17 part of the illumination light to the eye to be operated at an oblique angle larger than those for the
18 pair of deflection members with respect to the optical axis of the observation optical system,
19 the operation microscope further comprising:
20 an emitting region adjusting means for adjusting an emitting region of the illumination light
21 from the light source selected from one of the 1st, 2nd, and 3rd or plural deflection members by
22 switching one part of the illumination light so as to cope with the shape of the deflection members
23 to be guided to the eye to be operated.

1 Claim 2 (original): An operation microscope according to claim 1, wherein one deflection
2 member of the pair of deflection members is disposed between the illumination optical system and
3 the optical axis of the observation optical system and the other deflection member is disposed in an
4 opposite side to the one deflection member so as to sandwich the optical axis of the observation
5 optical system therebetween.

1 Claim 3 (previously presented): An operation microscope according to claim 2, wherein
2 each of the pair of deflection members guides the part of the illumination light to the eye to be
3 operated at an oblique angle of 1.5 to 2.5 degrees with respect to the optical axis of the observation
4 optical system.

Claim 4 (canceled).

1 Claim 5 (previously presented): An operation microscope comprising:

2 an observation optical system including an objective lens opposed to an eye to be operated;

3 an illumination optical system for guiding illumination light from a light source to a vicinity

4 of an optical axis of the observation optical system; and

5 a deflection means for deflecting the illumination light guided to the vicinity of the optical

6 axis of the observation optical system by the illumination optical system and guiding the illumination

7 light to the eye to be operated through the objective lens,

8 wherein the deflection means includes a pair of deflection members which are a first

9 deflection member for guiding a first part of the illumination light at a predetermined oblique angle

10 with respect to the optical axis of the observation optical system and a second deflection member

11 for guiding a second part of the illumination light at an oblique angle substantially equal to the

12 predetermined oblique angle with respect to the optical axis simultaneously with guiding of the first

13 part of the illumination light by the first deflection member, the second deflection member being

14 disposed in an opposite side to the first deflection member so as to sandwich the optical axis of the

15 observation optical system therebetween,

16 wherein the deflection means further includes a third deflection member that guides a third

17 part of the illumination light to the eye to be operated at an oblique angle larger than those for the

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18 pair of deflection members with respect to the optical axis of the observation optical system,
19 the operation microscope further comprising:
20 an emitting region adjusting means for adjusting an emitting region of the illumination light
21 from the light source to switch the shield disk to guide the part of the illumination light to the eye
22 to be operated,
23 wherein any one of the pair of deflection members, the third deflection member, or a
24 combination of one of the pair of deflection members and the third deflection member is selected
25 based on adjustment of the emitting region of the illumination light by the emitting region adjusting
26 means and the part of the illumination light is guided by the selected deflection member to the eye
27 to be operated.

1 Claim 6 (original): An operation microscope according to claim 5, wherein the emitting
2 region adjusting means comprises of a shielding disk having slots provided on its periphery to form
3 the emitting regions and shielding disk driving mechanism formed with a control circuit including
4 a stepping motor, a photo sensor and a foot switch.

1 Claim 7 (currently amended): An operation microscope according to claim [[4]] 1 or 2,
2 wherein one deflection member of the pair of deflection members and the third deflection member
3 are integrally formed.

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1 Claim 8 (original): An operation microscope according to claim 1, wherein the observation
2 optical system includes a pair of optical systems composed of an optical system for guiding
3 observation light to a left eye of an operator and an optical system for guiding observation light to
4 a right eye thereof,

5 the operation microscope further comprising: an optical axis position changing means for
6 changing relative positions of optical axes of the right and left observation lights guided to the pair
7 of optical systems; and

8 a shifting means capable of retreating at least one of the pair of deflection members and
9 locating the optical axis position changing means on optical paths of the right and left observation
10 lights.

1 Claim 9 (original): An operation microscope according to claim 8, wherein the optical axis
2 position changing means is provided near one deflection member of the pair of deflection members
3 and at an opposite position thereto with respect to the optical axis of the observation optical system,
4 and

5 wherein the one deflection member and the optical axis position changing means are
6 integrally shifted by the shifting means.

1 Claim 10 (original): An operation microscope according to claim 8 or 9, wherein the one
2 deflection member of the pair of deflection members is disposed between the illumination optical

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3 system and the optical axes of the right and left observation lights, the other deflection member is
4 disposed in an opposite side to the one deflection member to sandwich the optical axes of the right
5 and left observation lights therebetween, and

6 wherein the shifting means retreats the other deflection member to one deflection member
7 side and shifts the optical axis position changing means so as to locate the optical axis position
8 changing means on the optical paths of the right and left observation lights.

1 Claim 11 (previously presented): An operation microscope, comprising:
2 an observation optical system including an objective lens opposed to an eye to be operated;
3 an illumination optical system for guiding illumination light from a light source to a vicinity
4 of an optical axis of the observation optical system; and
5 a deflection means for deflecting the illumination light guided to the vicinity of the optical
6 axis of the observation optical system by the illumination optical system and guiding the illumination
7 light to the eye to be operated through the objective lens,
8 wherein the deflection means includes a pair of deflection members which are a first
9 deflection member for guiding a first part of the illumination light at a predetermined oblique angle
10 with respect to the optical axis of the observation optical system and a second deflection member
11 for guiding a second part of the illumination light at an oblique angle substantially equal to the
12 predetermined oblique angle with respect to the optical axis simultaneously with guiding of the first
13 part of the illumination light by the first deflection member, the second deflection member being

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14 disposed in an opposite side to the first deflection member so as to sandwich the optical axis of the
15 observation optical system therebetween,

16 wherein the deflection means further includes a third deflection member that guides a third
17 part of the illumination light to the eye to be operated at an oblique angle larger than those for the
18 pair of deflection members with respect to the optical axis of the observation optical system,

19 the operation microscope further comprising:

20 an emitting region adjusting means for adjusting an emitting region of the illumination light
21 from the light source to switch the deflection members so as to cope with the shape of the deflection
22 members each guiding the part of the illumination light to the eye to be operated,

23 wherein any one of the pair of deflection members, the third deflection member, or a
24 combination of one of the pair of deflection members and the third deflection member is selected
25 based on adjustment of the emitting region of the illumination light by the emitting region adjusting
26 means and the part of the illumination light is guided by the selected deflection member.

1 Claim 12 (previously presented): An operation microscope according to claim 11, wherein
2 the emitting region adjusting means comprises of a shielding disk having slots provided on its
3 periphery to form the emitting regions and shielding disk driving mechanism formed with a control
4 circuit including a stepping motor, a photo sensor and a foot switch.

1 Claim 13 (previously presented): An operation microscope according to claim 3, wherein the

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2 predetermined oblique angle is 2 degrees.

Claims 14 and 15 (canceled).

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